AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows. This listing of claims will replace all prior listings.

1. (CURENTLY AMENDED) A split torque gearbox system comprising:

a first spur gear mounted for rotation about a first spur gear axis of rotation;

a second spur gear mounted for rotation about a second spur gear axis of rotation; and

a floating pinion gear driven by a radially unsupported pinion shaft said floating pinion gear mounted for rotation about a floating pinion axis of rotation which provides a flexibility ~~to define a floating pinion gear displacement envelope~~, said floating pinion gear meshed with said first spur gear and said second spur gear~~, said pinion gear mounted for rotation about a pinion axis of rotation,~~ said floating pinion gear axis of rotation displaceable ~~within said floating pinion gear displacement envelope~~ to split a load between said first spur gear and said second spur gear, said floating pinion axis of rotation, said first spur gear axis of rotation, and said second spur gear axis of rotation located along a common line, said floating pinion axis of rotation displaceable off said common line to split a load between said first spur gear and said second spur gear.

2. (CANCELED)

3. (PREVIOUSLY PRESENTED) The split torque gearbox system as recited in claim 1, further comprising a face gear mounted to said pinion shaft.

4. (PREVIOUSLY PRESENTED) The split torque gearbox system as recited in claim 1, further comprising a spiral bevel gear mounted to said pinion shaft.

5. (ORIGINAL) The split torque gearbox system as recited in claim 1, further comprising:

a first double helical gear driven by said first spur gear, said first double helical gear defined along said first spur gear axis of rotation; and

a second double helical gear driven by said second spur gear, said second double helical gear defined along said second spur gear axis of rotation.

6. (ORIGINAL) The split torque gearbox system as recited in claim 5, further comprising an output gear meshed with said first and second double helical gear.

7. (ORIGINAL) The split torque gearbox system as recited in claim 6, further comprising a main rotor shaft driven by said output gear.

8. (CURRENTLY AMENDED) A split torque gearbox system for a rotary wing aircraft comprising:

an input shaft;

a face gear driven by said input shaft about a face gear axis of rotation;

a first spur gear mounted for rotation about a first spur gear axis of rotation;

a second spur gear mounted for rotation about a second spur gear axis of rotation; and

a floating pinion gear driven by a radially unsupported pinion shaft mounted to said face gear, ~~said floating pinion gear mounted for rotation about a floating pinion axis of rotation which provides a flexibility, said radially unsupported pinion shaft providing a flexibility to define a floating pinion gear displacement envelope,~~ said floating pinion gear meshed with said first spur gear and said second spur gear, ~~said pinion mounted for rotation about a pinion axis of rotation, said floating pinion axis of rotation displaceable within said floating pinion gear displacement envelope to split a load between said first spur gear and said second spur gear, said floating pinion axis of rotation, said first spur gear axis of rotation, and said second spur gear axis of rotation located along a common line, said floating pinion axis of rotation displaceable off said common line to split a load between said first spur gear and said second spur gear;~~

a first double helical gear driven by said first spur gear, said first double helical gear defined along said first spur gear axis of rotation;

a second double helical gear driven by said second spur gear, said second double helical gear defined along said second spur gear axis of rotation; and

an output gear meshed with said first and second double helical gears.

9. (ORIGINAL) The split torque gearbox system as recited in claim 8, further comprising a main rotor shaft driven by said output gear.

10. (ORIGINAL) The split torque gearbox system as recited in claim 8, wherein said input shaft is driven by a gas turbine engine.

11. (ORIGINAL) The split torque gearbox system as recited in claim 8, wherein said face gear defines a gear face perpendicular to said face gear axis of rotation, said input shaft angled relative said gear face.

12. (CURRENTLY AMENDED) A method of splitting torque within a split torque gearbox system comprising the steps of:

(1) driving a floating pinion gear about a pinion gear axis of rotation through a radially unsupported pinion shaft which provides a flexibility ~~to define a floating pinion gear displacement envelope~~; and

(2) engaging the floating pinion with a first gear and a second gear, the first gear rotating around a first gear axis of rotation, the second gear rotating around a second gear axis of rotation, the first gear axis of rotation, the second gear axis of rotation and the pinion gear axis of rotation located along a common line, the pinion gear axis of rotation displaceable off the common line ~~and within the displacement envelope~~ to split a load between the first gear and the second gear.

13. (ORIGINAL) A method as recited in claim 12, further comprising the steps of:

driving a first double helical gear by the first gear, the first double helical gear rotating about the first gear axis of rotation and axially movable along the first gear axis of rotation; and

driving a second double helical gear by the second gear, the second double helical gear rotating about the second gear axis of rotation, and axially movable along the second gear axis of rotation.

14. (ORIGINAL) A method as recited in claim 13, further comprising the steps of:

driving an output gear about an output gear axis of rotation with the first and second double helical gear.

15. (ORIGINAL) A method as recited in claim 13, further comprising the steps of:

driving a rotor system about the output gear axis of rotation with the output gear.

16. (ORIGINAL) A method as recited in claim 12, further comprising the steps of:

driving a face gear about a face gear axis of rotation with a high speed input shaft;

driving the floating pinion with the face gear through a floating pinion shaft.

17. (ORIGINAL) A method as recited in claim 16, further comprising the steps of:

driving the high speed input shaft along an input shaft axis of rotation which is angled relative the face gear.

18. (ORIGINAL) A method as recited in claim 17, further comprising the steps of:

driving a second face gear about a second face gear axis of rotation, the second face gear axis of rotation parallel to the face gear axis of rotation.

19. (ORIGINAL) A method as recited in claim 17, further comprising the steps of:

driving a second face gear about a second face gear axis of rotation, the second face gear axis of rotation defined along the face gear axis of rotation.

20. (PREVIOUSLY PRESENTED) The split torque gearbox system as recited in claim 1, wherein said floating pinion gear is mounted to said radially unsupported pinion shaft in a cantilever manner.

21. (PREVIOUSLY PRESENTED) The split torque gearbox system as recited in claim 20, wherein said floating pinion gear is mounted to a distal end of said radially unsupported pinion shaft.

22. (PREVIOUSLY PRESENTED) The split torque gearbox system as recited in claim 1, wherein said displacement envelope within which said floating pinion gear axis of rotation may be displaced is non-linear.

23. (PREVIOUSLY PRESENTED) The split torque gearbox system as recited in claim 1, wherein said displacement envelope within which said floating pinion gear axis of rotation may be displaced is transverse to said floating pinion gear axis of rotation.

24. (PREVIOUSLY PRESENTED) The split torque gearbox system as recited in claim 1, wherein said displacement envelope within which said floating pinion gear axis of rotation may be displaced to split said load between said first spur gear and said second spur gear is generally diamond shape.

25. (CANCELED)

26. (PREVIOUSLY PRESENTED) A method as recited in claim 13, further comprising the steps of:

mounting the floating pinion gear in a cantilever manner to a distal end of the radially unsupported pinion shaft to define the displacement envelope.

27. (PREVIOUSLY PRESENTED) A method as recited in claim 13, further comprising the steps of:

defining the displacement envelope through flexing of the radially unsupported pinion shaft.

28. (NEW) A split torque gearbox system for a rotary wing aircraft comprising:

a first gear module having a first module input gear defined along a first axis;

a second gear module having a second module input gear defined along said first axis; and

an input shaft having a first input gear and a second input gear defined along a second axis angled relative to said first axis such that said first input gear is in meshing engagement with said first module input gear and said second input gear is in meshing engagement with said second module input gear.

29. (NEW) The split torque gearbox system as recited in claim 28, wherein said first gear module further comprises:

a first first module gear mounted for rotation about a first module gear axis of rotation;

a second first module gear mounted for rotation about a second module gear axis of rotation; and

a floating pinion gear mounted for rotation about a floating pinion axis of rotation and meshed with said first first module gear and said second first module gear, said floating pinion gear driven by a radially unsupported pinion shaft which extends from said first module input gear, said floating pinion gear displaceable off said floating pinion axis of rotation to split a load between said first first module gear and said second first module gear.

30. (NEW) The split torque gearbox system as recited in claim 29, wherein said floating pinion axis of rotation is defined along said first axis.

31. (NEW) The split torque gearbox system as recited in claim 29, wherein said first module input gear comprises a face gear.

32. (NEW) The split torque gearbox system as recited in claim 29, wherein said input shaft extends generally between said first module input gear and said second module input gear.

33. (NEW) The split torque gearbox system as recited in claim 29, wherein said input shaft is driven by a gas turbine engine.

34. (NEW) The split torque gearbox system as recited in claim 28, wherein said first gear module is in driving engagement with a first rotor system and said second gear module is in driving engagement with a second rotor system, said first rotor system and said second rotor system counter-rotating.

35. (NEW) The split torque gearbox system as recited in claim 28, wherein said first gear module and said second gear module are in driving engagement with a first rotor system.

36. (NEW) The split torque gearbox system as recited in claim 29, wherein said first module gear axis of rotation, said second module gear axis of rotation and said floating pinion axis of rotation are defined along a common line, said the floating pinion axis of rotation displaceable off the common line to split a load between the first module input gear and the second module input gear.

37. (NEW) The split torque gearbox system as recited in claim 29, wherein said second gear module further comprises:

a first second module gear mounted for rotation about a first module gear axis of rotation;

a second second module gear mounted for rotation about a second module gear axis of

rotation; and

a floating pinion gear mounted for rotation about a floating pinion axis of rotation and meshed with said first second module gear and said second second module gear, said floating pinion gear driven by a radially unsupported pinion shaft which extends from said second module input gear, said first module gear axis of rotation, said second module gear axis of rotation and said floating pinion axis of rotation defined along a common line, said the floating pinion axis of rotation displaceable off the common line to split a load between the first module input gear and the second module input gear.